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Integrated strategic healthcare management control techniques for effective performance of the South African public healthcare system

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Abstract
This paper examines what is and what ought to be the integrated strategic healthcare management control techniques for improving monitoring and evaluation of activities in the South African public healthcare system. Conceptual analysis was used as the main qualitative research technique. It involved three main phases of evaluation, namely; the analysis of theories on strategic management control techniques, the evaluation of documents used as control mechanisms in the Department of Health, and comparison of theoretical findings with management practices in the Department of Health.
The interpretation of management control theories indicated that the effectiveness of integrated management control technique is predicted by the use of a combination of pre-control, concurrent control and post-control techniques. However, a comparison of these theoretical findings with practices in the Department of Health signified greater preponderance of managers to mainly rely on post control techniques, as the importance of feed-forward and concurrent management control systems are underestimated.
In effect, the paper proposes that the development and use of a single conceptual framework that integrates pre-control, concurrent and post- healthcare management control techniques would provide the appropriate mechanism for improving evaluation and control of healthcare activities, and subsequently, the overall performance of the South African public healthcare system.

Key phrases
control techniques; healthcare performance; healthcare system; strategic management

1. INTRODUCTION

The use of integrated sets of compatible strategic management control techniques facilitates the ability of managers and supervisors to effectively identify all deviations (Armstrong

2010:590; Simon 1995:1).This enhances the determining of appropriate remedial measures that can be used for ensuring that the implementation of strategies and programmes is successful (Gareth 2007:204; Mandal 2011:70).The end results are often reflected in significant minimisation of resources' wastage, and subsequently, the improvement in resource optimisation (Hawke 2012:310).

In the context of a healthcare system, the enhancement of resources' optimisation amplifies the ability of a public healthcare system to effectively meet the constantly spiralling diverse and complex public healthcare needs and wants of the population (Whittaker, Shaw, Spieker & Linegar 2011:3).Unfortunately, limited prior studies have made significant strides into the assessment of the appropriate set of strategic management control techniques that influence the effectiveness of strategic management control in the modern public healthcare systems (Engelbrecht & Crisp 2010:195; Kollberg 2007:130; Whittaker et al. 2011:3).

Instead, most studies have only focused on examining implications associated with the use of only certain techniques without pointing out how such techniques interplay with other techniques to enhance the effectiveness of control in the modern organisations (Kaplan 2010:5; Ouchi 1979:833; Simon 1995:1; World Bank 2011:1). Such conceptual limitations affect the extent to which the South African public healthcare system is able to replicate and adopt the appropriate integrated framework of strategic healthcare management control techniques that can be used for improving monitoring and evaluation of its activities.

It is such conceptual limitations that this research seeks to resolve by undertaking a conceptual analysis of different theories and views from different organisational practitioners so as to determine the appropriate integrated coherent framework of strategic healthcare management control techniques that can be adopted for improving activities' monitoring and evaluation in the South African public healthcare system. In other words, the challenge of lack of integrated strategic management control techniques is not only latent in the practices and government documents in the South African public healthcare system, but also in the existing management control theories.

2. CONCEPTUAL SHORTFALLS: STRATEGIC MANAGEMENT CONTROL THEORIES

Over the decades an avalanche of studies have been conducted on strategic management control, but most of the postulated strategic management control frameworks are less suitable for improving activities' control in the modern public sector organisations. Kaplan and Norton

(1992:4) and Ouchi (1979:833) provide some of the conceptual frameworks which have been widely embraced by different organisations as measures for improving activities' control.

However, empirical facts imply that over time, Kaplan and Norton (1992:4) and Ouchi's (1979:833) conceptual frameworks have been confirmed to be largely suitable for measuring activities in private sector organisations. Similar drawbacks seem applicable to Simon's (1995:1) "Four Levers of Control". Although Simon (1995:1) attempts to outline certain essential management control techniques, it still falls short of all the management control techniques that are essential for improving monitoring and evaluation of activities in the modern complex public healthcare settings.

While doubting whether Kaplan and Norton's (1992:4) "balanced scorecard" is really "balanced", Simon (1995:1) posits in his "Four Levers of Control" that the effectiveness of a management control model is measured by constructs encompassing; diagnostic control systems, belief and boundary control systems, and interactive control systems. These dimensions of management control seem to provide appropriate reflection of a more comprehensive strategic management control framework (Surendran 2010:119).

However, the limitation of Simon's (1995:1) four levers as an effective integrated management control technique is still reflected in the fact that although his diagnostic control systems provide certain essential concurrent control techniques, the belief and boundary control systems that comprise of rules, regulations, and established organisational ettiqutes are certainly not control techniques, but rather prerequisites (Butler & Rose 2011:229).

Caglio and Zoni (2010:58) posit that management control prerequisites refer to things that must be put in place or activities that must be accomplished before actual evaluation can commence. They highlight that such prerequisites include planning, organising appropriate structures, ensuring appropriateness of employees' competencies, and rules and regulations to guide behaviours and how activities must be evaluated.

As compared to control techniques which are tools used in actual evaluation, Butler and Rose (2011:229) argue that rules and regulations are well regarded in management control theories and practices as factors that merely provide the basis and foundation for evaluation.

At the same time, Simon's (1995:1) interactive control systems that empahsise the use of concurrent control techniques (performance appraisals and Management-By-Objectives (MBO) and feedback control techniques (budgets and financial statements) undermine the importance of concurrent control techniques such as benchmarking and service quality

evaluation (Berry, Coad, Harris, Otley & Stringer, 2009:2). Yet Ueno (2010:74) posits that the use of appropriate quality evaluation techniques is fundamental for enhancing the effectiveness of management control.

An attempt to integrate the views of different contemporary management control theorists implies that the three main sets of the strategic management control techniques that influence the effectiveness of activities' control in the modern organisations include feed-forward, concurrent and feedback control techniques (Grant 2011:217; Koontz & Weihrich 2010:406; Mandal 2011:106).

Such a view implies that Simon (1995:1) outlines only some of these techniques to the extent that an attempt to use his "Four Levers of Control" would not be effective for identification of all deviations and the appropriate remedial measures that can be used. As it is indicated in the research problem, the conceptual limitations in the existing management control theories seem to have also affected the overall evolution of management control philosophy and practices in the South African public healthcare system.

3. PROBLEM INVESTIGATED

The use of a less coherent management control framework reflecting techniques scattered across the national healthcare strategic plan, the hospital supervisors' manual, the clinics' supervisors' manual, the articulation of the department of performance monitoring and evaluation, and the national development plan undermines the effectiveness of activities' control in the modern South African public healthcare system (Public Service Commission's 2013/2014 annual report; Department of Health 2012/2013).

Empirical studies link the failure of the South African public healthcare system to achieve some of the outlined strategic public healthcare goals and objectives to inadequate skilled human resources, poor planning, shortage of finance, poor staff motivation and commitment, and governmental reluctance to ensure that the implementation of all healthcare programmes achieve the outlined strategic goals (Harrison 2010:2; Health Systems Trust 2009:1; Whittaker et al. 2011:3).

However, the fundamental argument in this paper is that to some extent such less coherent approach to management control systems seems to explain why authors such as Harrison (2010:2), and Whittaker et al.(2011:3) opine that since 1994, several public healthcare plans and programmes have been implemented, but the country still continues to experience poor and inadequate public healthcare services.

4. PURPOSE OF THE RESEARCH

The main purpose of this conceptual paper is to examine what is and what ought to be the integrated strategic healthcare management control techniques for improving monitoring and evaluating of healthcare activities in the South African public healthcare system.

5. METHODOLOGY

While drawing from Glesne (2010:144) and Schilling's (2006:28) prescriptions, concept analysis was used as the main qualitative research technique to facilitate critical analysis and evaluation of theories so as to determine the integrated strategic healthcare management control techniques that can be adopted for improving activities' control and the overall performance of the South African public healthcare system.

In the endeavour to enhance in-depth analysis and exploring of the complexity and different facets of the constructs that measure the effectiveness of the strategic healthcare management control framework, the process of conceptual analysis was accomplished in accord with Schilling's (2006:28) three phases of concept analysis.

The first phase involved the assessment of core theories on strategic management control techniques. Although no well-defined framework that integrates all pre-control, concurrent and post control techniques was discovered, these three sets of techniques provided the basis for a conceptual interpretation to be undertaken by identifying different themes from different management control theories and grouping them under each of the three main constructs that encompass; pre-control, concurrent control and post-control management control techniques. The completion of this step defined the next stage of evaluation that involved critical analysis of healthcare management control techniques used in the South African public healthcare system.

While drawing from the views of Elo and Kyngäs (2008:107) and Fereday and Muir-Cochrane (2006:5), analysis and interpretation were accomplished through evaluation of major government documents that include: Department of Health's (2006) Clinics Supervisor's Manual, the Department of Health's (2012/2013:299) strategic healthcare plan, documents from the Office of Health Standards Compliance (2013:44), Health Professional Council of South Africa (2008:1), Public Service Commission's 2013/2014 annual report, and findings of the studies conducted by authors such as Moleko (2013:4:4) and Ruff, Mzimba, Hendrie and Broomberg (2011:184). Some of the documents were drawn from the internet for the reason that Seifert and Bonham (2010:19) emphasise that with the increasing embracement of e-

government across the world and with South Africa inclusive, most government departments prefer to use online services to disseminate information to the citizens.

In this instance, Seifert and Bonham (2010:19) highlight that attempts of physical visits to government offices are being discouraged in a bid to reduce costs and improve efficiency. Nonetheless, further corroborations of the contents of the obtained documents through consultation and exchange of views with some officials from the department of health indicated that the documents analysed provided accurate reflection of how management control is accomplished in the South African public healthcare system.

With a comprehensive view of healthcare management control techniques in the South African public healthcare system gained, analysis and comparisons were undertaken in order to assess the challenges and the overall effectiveness of healthcare management control techniques used in the South African public healthcare system. This led to the evaluation of practical implications associated with the integrated strategic healthcare management control techniques that must be adopted for improving activities' control and the overall performance of the South African public healthcare system. The findings are as presented and discussed in the next section.

6. FINDINGS

In line with the descriptions in the above methodology, the findings and discussions in this section are presented according to the three main subsections that include: contemporary theories on strategic management control, management control techniques in the South African public healthcare system, disussions and management implications.

6.1 Contemporary theories on strategic management control

While citing Anthony's (1965:2) founding definition of management control, Salarzehi and Kord (2010:193) argue that strategic management control refers to a process that managers use in measuring the effectiveness and efficiency at which the organisational resources are utilised in the accomplishment of activities that influence achievement of strategic goals and objectives of the organisation. In the endeavour to ensure that management control is effectively accomplished, authors such as Grant (2011:217), Koontz and Weihrich (2010:406) and Mandal (2011:106) express similar views that it has been widely confirmed that the three main sets of techniques that influence the effectiveness of management control include; pre-control, concurrent control and post-control techniques.

A management control technique is construed by Caglio and Zoni (2010:58) to connote a tool that managers use in the actual process of measuring the effectiveness and efficiency of resource utilisation. It is evident in the views of authors like Grant (2011:217), Koontz and Weihrich (2010:406) and Mandal (2011:106) that the use of a combination of pre-control, concurrent control and post-control techniques the effectiveness of management control.

However, it is a fundamental argument in this conceptual paper that only a paucity of theories by Simon (1995:1) and Kaplan (1992:1) have elucidated on the sets of key control techniques that must be used in each of the three categories of management controls. Even if such theories do so, they only focus on certain techniques.

It is aim to resolve such conceptual shortfalls in management control theories which is the focus of evaluation and analysis of theories in this section. In a bid to accomplish this, the review of different literature and theories is undertaken with the motive of integrating different control techniques according to the three categories that include; feed-forward, concurrent and feedback management control techniques.

6.2 Pre-management control

The analysis and comparison of different views imply that most authors agree that pre-management control refers to the process of using a set of coherent strategic management control techniques in the assessment of the previous and present data to facilitate the prediction of the likely future changes (Gurau & Melnic 2012:5). Such analysis is important for it enhances the prediction of probable changes in the external variables that can either distort or promote the accomplishment of the organisational activities (Gurau & Melnic 2012:5).

A critical evaluation of the core management control theories also indicated that types of feed-forward management control techniques that managers must consider using in the process of activities' evaluation include; Programme Evaluation and Review Technique (PERT), Network Analysis and Critical Path Method (CPM), Pestel, SWOT analysis and forecasting (Halachmi 2011:10; Koontz & Weihrich 2010:406).

It is true that in certain cases, certain organisational instances may require the use of only certain specific techniques (Gurau & Melnic 2012:5). However, without a strategic framework that outlines all essential feed-forward management control techniques, the organisation's ability to accurately analyse, identify and conceptualise a scenario of all possible events may be undermined and des-stabilise the successful accomplishment of the desired activities (Correia & Abreu 2011:261).

Such a view signifies that the application of a combination of feed-forward management control techniques enables the weaknesses of one technique to be countered by the strength of the other. This is accentuated in the argument that pre-control control techniques that include Critical Path Methods (CPM) and Programme Review and Evaluation Techniques (PERT) focus only on the assessment of the factors that can make it difficult for a project to be accomplished within the prescribed time duration (Correia & Abreu 2011:261). Such approach differs from what SWOT analysis undertakes for that SWOT analysis enhances the examining of possible threats and opportunities vis-à-vis existing strengths and weaknesses of the organisation (Stoner, Freeman & Gilbert 2008:229).

Strategic management theorists such as Thompson and Strickland (2007:209) have taken a narrow perspective of SWOT analysis as a strategy tool for deciding policy and formulation of strategic plan without any inherent control element or technique. However, in the explanation of the contingency theoretical approach on management control, Davila, Foster and Li (2009:322) suggest that SWOT analysis comprises the critical part of the pre-control technique and process that defines the context of strategy implementation.

In other words, they construe that SWOT analysis is both a pre-control and risk analysis tool that enables organisations predict the probability of certain events and integrate the necessary measures in the strategic planning process to mitigate or prevent the process of strategy implementation from being affected by such events.

Nevertheless, further analysis implies that the essence of using a combination of feed-forward management control techniques are often latent in the fact unlike techniques such as SWOT analysis and PESTEL, possible responses in CPM and PERT facilitate conceptualisation and application of measures that render it possible for a single project to be completed within the prescribed time duration (Correia & Abreu 2011:261). However, the extent to which such proficiency is achievable depends on whether the use of feed-forward control techniques is accompanied with the application of appropriate concurrent management control techniques (Armstrong 2010:590).

6.3 Concurrent management control

Different opinions imply that a concurrent management control system consists a set of techniques and measures which are applied by managers and employees for monitoring and evaluation as activities are executed (Halachmi 2011:10; Koontz & Weihrich 2010:406). Effective application of concurrent management control techniques enables managers identify

problems at their earliest stages and decide the appropriate corrective measures to be undertaken before deviations turn grave and costly (Koontz & Weihrich2010:406).

Such a view is associated with the interpretation that concurrent management control systems supplements the effectiveness of feed-forward management control systems (Bento, Bento & White (2014:25)). Whereas feed-forward management control techniques are used to identify future changes, concurrent management control techniques are more effective for monitoring, evaluating and controlling strategies implemented to either combat threats arising from such changes or enhance the general organisational performance from the opportunities presented by the changes in the external environment (Armstrong 2010:590; Bento et al. 2014:25).

However, the analysis and interpretation of different theories signify that the effectiveness of the concurrent management control system depends on the extent to which managers are able to use of a combination of techniques encompassing performance management, management by objectives, performance appraisal, dashboards, traffic lighting, the balanced scorecard, benchmarking and the conceptual frameworks for analysing service encounter (Halachmi 2011:10; Jawaher, Jumah & Buttram 2012:273; Rothberg 2012:5).

Generally, concurrent management control techniques provide managers with the opportunity to evaluate and control activities as they are executed (Ayatse 2012:6-22). In addition to the use of a combination of these techniques, concurrent management control mechanisms may only be effective if managers and employees are willing and committed to react as soon as possible to the identified deviations (Aurora & Kale 2008:30).

6.4 Post-management control

Feedback management control refers to the process of evaluating and measuring performance after the accomplishments of tasks or activities have been completed (Aurora & Kale 2008:30). The overall purpose of feedback management control is to assess whether activities so far accomplished have resulted in the achievement of the desired strategic objectives and goals (Aurora & Kale 2008:30; Gerdin & Greeve 2004:303). It also facilitates the evaluation of the extent of the overall attainment of the desired level of performance. Dating back to the accounting reports prepared for thousands of years prior to the industrial revolution, organisational practices indicate that feedback management control techniques have still remained the most commonly used in modern organisations (Butler & Rose 2011:183; Marchesan & Formoso 2009:2).

Different theories imply that the most commonly used financial and cost measures in a feedback management control technique include budgets, financial statements and ratios, residual economic income, economic value added, break-even analysis, and internal and external audits (Aurora & Kale 2008:30; Duening & Ivancevich 2011:277).

In addition to financial and cost measures, internal and external audits are some of the other post-control techniques which are used for evaluating, monitoring and controlling activities in modern organisations (Koontz & Weihrich 2010:296). Although audit reports enhance the analysis of the organisational performance within a given period of time, the quality of audit reports are usually marred by certain challenges that include inappropriate financial management skills, interference with internal auditors, poor financial data management, poor corporate governance, and unethical practices among financial managers (Morgan 2005:111;Tsivalingam 2006:377).

In order to deal with these challenges, managers must emphasize the use of a combination of internal auditors or external auditors. Internal auditing is usually accomplished by the auditor who is an employee of the organisation through independent appraisal of the financial performance and other operations of the company (Tsivalingam 2006:377).

In a nutshell, it is apparent from these theories that the effectiveness of management control is influenced by the use of a combination of pre-control, concurrent control and post-control techniques. In line with illustration in Figure 2, the overall analysis and interpretation of the theories imply that pre-management control techniques is measured by techniques encompassing the use of Critical Path Method, Programme Evaluation and Review Technique, the Use of Forecasting, SWOT Analysis and PESTEL Analysis.

Figure 1 further highlights that concurrent management control techniques that managers can use include; performance management, dashboards, traffic lighting, balanced scorecard, benchmarking, performance appraisal and service quality evaluation techniques. It is also evident in Figure 1 that feedback management control techniques which are used in the modern organisations include budgets, financial statements, internal audits and external audits.

Since no single author was found to espouse the view in Figure 1, the analysis warrants the interpretation that the overview in Figure 1 implies that the dilemma associated with lack of an integrated theoretical framework of management control techniques has been largely resolved. However, the overall motive of this paper is determine the integrated strategic healthcare

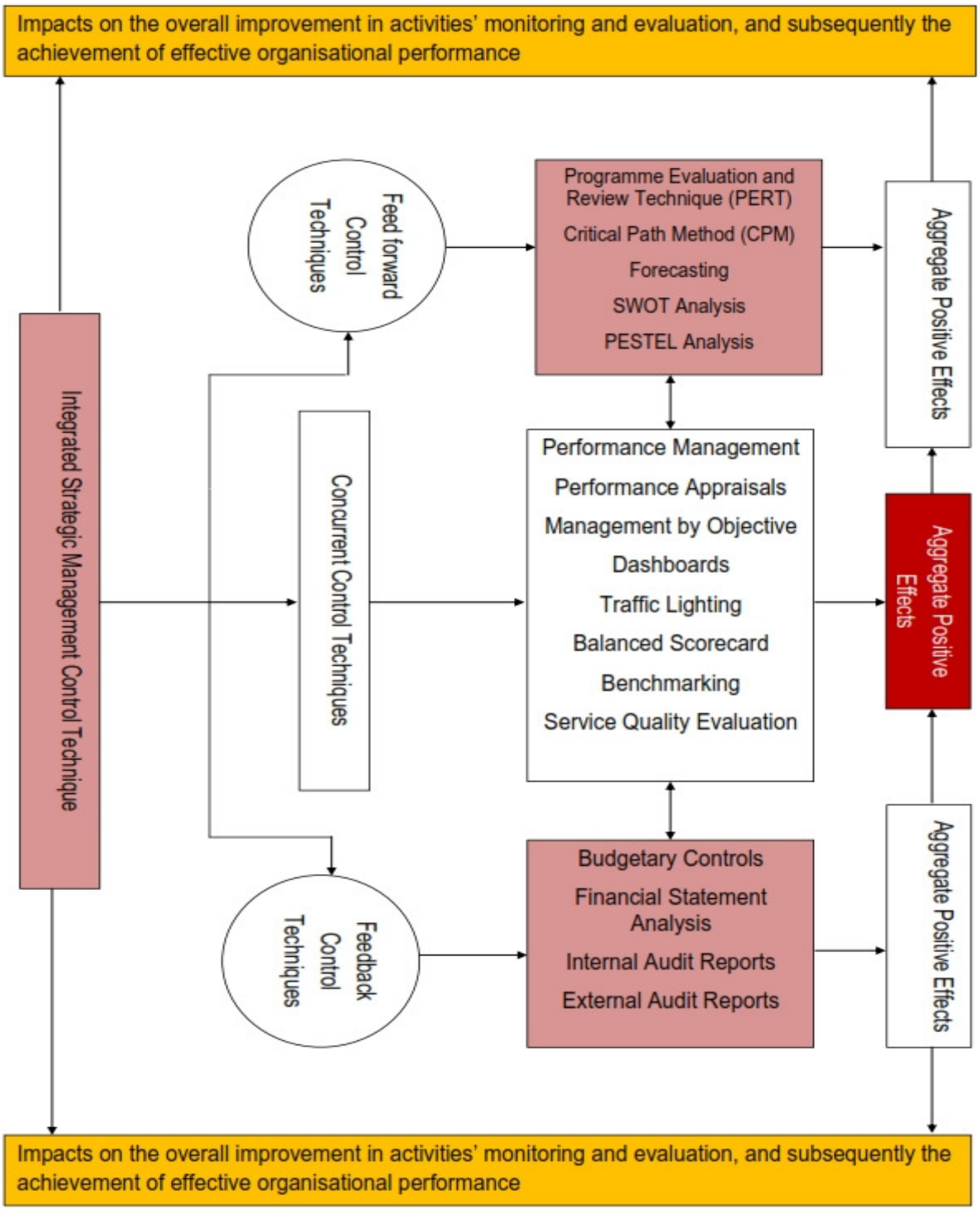

FIGURE 1: Theoretical perspective of the integrated strategic management control techniques

Source: Researchers' own construct as derived from the interpretation and integration of different theories on strategic management control techniques.

management control techniques which can be adopted for improving monitoring and evaluation, and the overall performance of the South African public healthcare system. The endeavour to achieve such motive signifies that probing and critical analysis of management control practices in the South African public healthcare system is a prerequisite for relevant logical conclusions to be reached.

6.5 Management control in the South African public healthcare system

It is evident from the analysis of the Department of Health's (2012/2013:299) strategic healthcare plan and the national development plan by the National Planning Commission (2011:15) that the most common forms of feed-forward management control techniques used in the South African public healthcare system include forecasting, PESTEL and SWOT analysis. In terms of concurrent management controls, the Department of Health (2006:132) as supported by Moleko (2013:4:4) reveals in its clinics' supervisors' manual that frequent supervision of healthcare activities is accomplished by five categories of public healthcare officials that include; the district health officers, hospital managers and supervisors, and PHC facility managers and supervisors.

6.5.1 Reviews and evaluations

In order to effectively execute their tasks, the Department of Health's (2006:132) clinic supervisors' manual prescribes that supervisors can use the four types of reviews, namely; red-flag checklist, monthly review, quarterly review and in-depth programme review. It highlights that the main areas for examination during the evaluation of the red flag checklist include drug stocks, staffs' absenteeism, and status of the equipments.

The Department of Health's (2006:132) clinic supervisors' manual elaborates that monthly review examines staff management, clinic management, clinical care standard, programmes of central public health importance, referrals both up and back, management of information and records, and community and client relations.

It reveals that monthly review often concludes with a list of actions which the supervisor and facility staff must take now and actions for months ahead. It is further noted that the quarterly checklist is conducted quarterly, since it is used for a more thorough review of all clinic functions. During in-depth programme review, the Department of Health's (2006:132) supervisor's manual requires that supervisors check each and every element of a given programme area and ensure that all the elements of the standards are adhered to. If the

standards have not been met, it prescribes that remedial actions from the clinic and higher levels must immediately be recommended.

The Department of Health's (2006:132) supervisor's manual notes that in-depth programme review is usually a quick response to an identified problem in the clinic and is usually focused on a single part of the service, such as drug supply, problems of HIV and AIDS treatment or sputum exams in tuberculosis.

In addition to the supervisory roles which are played by the district health supervisors, the Department of Health's (2006:132) supervisor's manual notes that facility managers are also granted mandate by virtue of their office and the provisions in the clinic's manager's manual to perform monitoring and evaluation of healthcare activities in facilities. The Department of Health (2006:77) prescribes that issues which the clinic managers are supposed to monitor on a daily basis concern the evaluations of whether the accomplishment of general leadership and planning in the clinic are in accord with the national health vision/mission, and whether the transformed clinic visions are made more visible. In terms of staff evaluation, the Department of Health's (2006:132) supervisor's manual prescribes that clinic managers must assess whether there has been new staff orientation, all vacancies are filled, there is appropriate job description performance plan, and whether the finances are being used properly.

6.5.2 Performance management and administrative controls

Hand in hand with the supervisors and managers' supervision, Sangweni (2011:92) argues that the Department of Health must also comply with performance management and development appraisal systems which apply to the entire public service. Regarding the use of feedback management control techniques, the Department of Health's (2009/2010) annual report indicates that the common techniques which are used in the South African public healthcare system include budgets, financial statements, reports and legal mechanisms. It is highlighted in the Department of Health's (2009/2010) annual report that reports and budgets are used at the end of the fiscal year to assess areas of successes and failures, and identify critical areas that need improvements.

Regarding the application of legal control mechanisms, section 188 of the 1996 Constitution of the Republic of South Africa prescribes that the role of the office of the Auditor-General is to ensure that government departments and ministries account for the public funds received and expended (Republic of South Africa 1996:59). This is also supplemented by the Public Finance and Management Act 1999, that states that the effective accomplishment of such

roles would involve frequent reporting on financial irregularities, lack of proper records and filings, wrong allocation of funding and fiscals, or budget dumping at the end of the financial year (Bekker 2009:9).

On the recommendation of the National Assembly, the Public Protector is appointed by the President, in terms of Chapter Nine of the 1996 Constitution to perform tasks encompassing strengthening constitutional democracy by investigating and redressing improper and prejudicial conduct, maladministration and abuse of power in state affairs. The Parliament Standing Committee on Public Accounts (SCOPA) was established in terms of Section 55 of the Constitution of the Republic of South Africa (1996) to check on the financial irregularities in the public departments (Bekker 2009:9).

However, Bekker (2009:9) and Fourie (2007:9) note that although the Office of the Auditor General plays significant roles in ensuring that resources are efficiently and effectively utilised, it only provides reports after damages have already occurred.

It is also argued by Bekker (2009:9) and Fourie (2007:9) although the National Prosecuting Authority and the Office of the Public Protector play effective roles by deterring the other health officials through prosecuting those found to transverse the law, challenges arise from the process still have to be accomplished within certain laws which govern human rights and civil liberties. As they noted the overall negative implications such approach is often latent in the fact that it causes the exoneration of well known culprits on legal technicalities of no sufficient evidence to prove the case beyond reasonable doubt.

7. DISCUSSION

It is clear from the previous discussions that the effectiveness of a comprehensive management control system is predicted by the use of a combination of pre-control, concurrent control and post-control mechanisms.

However, the evaluations of organisational practices in the South African public healthcare system indicate that theories articulated by the Department of Health's (2006:132) clinic supervisors' manual, Department of Health's (2012/2013) national healthcare strategic plan and Public Service Commission's (2013/2014) annual report suggest that the South African public healthcare system uses mainly feedback management control techniques, in conjunction with the application of performance measurement and supervisions as the main forms of concurrent management control techniques.

In the context of the views espoused in the Department of Health's (2006) Supervisor's Manual and the Office of Health Standards Compliance (2013:44), there is not only a lack of use of pre-control techniques, but also ineffective use of concurrent control techniques such as management-by-objectives, benchmarking, traffic lighting and balanced scorecard. Such a view is accentuated in the fact that just like in clinic and hospital evaluations which are undertaken under the Department of Health's (2006) Supervisor's Manual, the Office of Health Standards Compliance (2013:44) which was established under the National Health Amendment Act, 2013 also just uses reviews and evaluations of compliance with healthcare standards.

In this process, it is apparent from the presentation in the Office of Health Standards Compliance (2013:44) that the process involves visits and reviews by specialists from the national department to assess compliance with healthcare standards. In that instance, it can be noted that the use of measures such as benchmarking or some forms of scorecards are abhorrently ignored.

7.1 Limitations of reviews and evaluations

The extent to which such reviews and evaluations which are largely concurrent limit the effectiveness of management control in the South African public healthcare system is echoed in the opinion of Ruff et al. (2011:184) that measuring costs and quality of healthcare services is still a challenge. Ruff et al. (2011:184) also highlight that there is also a challenge of structural process re-engineering to shift away the present health structures from the legacy of the Victorian era in which significant reliance was placed on individual healthcare professionals to a modern setting that encourages team work.

Ruff et al. (2011:184) reason that the approach that emphasises teamwork enhances the optimisation of equipments. Ruff et al.'s (2011:184) views signify that as much as the existing reviews are critical for improving the speed and management of health care services, they are ineffective for measuring costs and quality outcomes as well as structural reviews and alignment. In other words, such analysis supports the fundamental argument in this conceptual paper that lack of the use of a balanced combination of different management control techniques enhances the assessment of different aspects of a public healthcare setting and the determining of the improvement measures that can be put in place.

When considered in the context of the views of Halachmi (2011:10), Koontz and Weihrich (2010:406), Marchewka (2010:43), and Sarrico, Rosa and Manatos (2012:272), such

approach certainly limits the successful monitoring and evaluation of public healthcare activities, in that lack of use of feed forward control techniques renders it difficult for the South African public healthcare system to detect and prepare strategies for mitigating future destabilising factors.

Yet an analysis using Halachmi (2011:10) and Sarrico et al.'s (2012:272) perceptions would also suggest that ineffective application of concurrent management control techniques signifies that the South African public healthcare cannot be able to identify all deviations. Such a limitation can undermine ability to correct such deviations before they turn grave and costly to rectify. The Department of Health's (2012/2013) national healthcare strategic plan indicates that the most commonly used post control techniques are annual reports and budgets.

7.2 Limitations of budgets and administrative controls

Although Mandal (2011:70) contends that the use of reports and budgets help in identifying areas of successes and failures at the end of each fiscal year, Lussier (2010:399) reveals that the use of reports and budgets is also associated with shortcomings reflected in the fact that they do not provide real-time information on project failures in the manner concurrent control mechanisms would do.

Lussier's (2010:399) doubt about the reliability of reports and budget controls is echoed in the annual report of the Public Service Commission (2013/2014:146) which indicates that the use of reports and budgets as control mechanisms is associated with aggregation of problems. Attributable to this view is the fact that the information presented to Head of Departments (HODs) and the Director General (DGs) is usually summarised and lack details to enable the identification and improvement in critical areas possible (Public Service Commission 2013/2014:146). The administrative and legal mechanisms are highlighted in the report of the Public Service Commission (2013/2014:361) as the other post-control techniques which are used by the South African Health Department.

Whereas Bekker (2008:13) and Fourie (2007:9) concur that there is a high notion of "colleagues' protectionisms" under the administrative mechanism, they also point out that legal mechanisms are only effective in instances where there is sufficient evidence that the abuse of office or corruption and embezzlement of funds intended for the implementation of healthcare plans and strategies have taken place.

In other words, it is such management control related limitations that seem to explain why authors such as Harrison (2010:2), Health Systems Trust (2009:1) and Whittaker et al.

(2011:3) opine that despite the fact that since 1994, several public healthcare plans, strategies and programmes have been implemented, the country still continues to experience poor and inadequate public healthcare services.

In the context of the narrow perspective of control prescribed under the Office of Health Standards Compliance (2013:44), it is more evident that essential concurrent techniques such as traffic lighting, the balanced score card, dashboard and benchmarking are lacking. At the same time, the literature in the Department of Health's (2006) clinic supervisor's manual also implies that the South African public healthcare system seems to use visits as means for tracking successes or failures of the implemented public healthcare plans and strategies.

In spite of the fact that such visits are effective for getting a glimpse of the actual situation on the ground, Cullinan (2006:10) notes that they have instead been received in most cases by acts of sabotage by the employees who view the process as micro-managing. The interpretation of the findings of Cullinan's (2006:10) study is associated with the fact that workers feel that they should be given the independence to control their daily activities, but such level of autonomy is only possible through the application of the other concurrent control techniques.

As echoed by Moleko (2013:4:4), the Department of Health's (2006:144) clinic supervisor's manual indicates that the Health Department as part of its concurrent control techniques also relies on weekly and monthly meetings to review areas needing attention. However, without the use of the accompanying concurrent control techniques such as dashboard approach, benchmarking, traffic lighting and balanced scorecard, the identification of all critical areas requiring immediate corrective actions may not be easy. Even if the Department of Health was to integrate these concurrent management control techniques in its framework, the findings of the study conducted by Whittaker et al. (2011:3) imply that their effectiveness would still be limited by lack of an effective primary healthcare information system.

The World Health Organisation (WHO)'s (2010) Health Systems' Framework as well as the World Bank's (2011:1) Control Knobs' Framework as cited in Papanicolas & Smith (2013:61) have been widely adopted as the control frameworks for evaluating different aspects of a healthcare system, namely; leadership and governance, healthcare financing, healthcare workforce, medical products and technologies, information and research, and service delivery. The World Bank's (2011:1) Control Knobs' Framework as cited in Papanicolas and Smith (2013:61) proposes that the five control knobs for evaluating and improving the performance of a healthcare system include; financing, payment, organisation, regulation and behaviour.

However, just like the WHO's (2010) Health Systems' Framework, the World Bank's (2011:1) Control Knobs' Framework also dwells on outlining prerequisites rather than providing a comprehensive management control techniques which can be adopted for improving monitoring and evaluation of activities in the South African public healthcare system. Attributable to this view is that factors such as leadership, governance, behaviours, regulations and information technology are regarded by Brown (2011:26) and Butler and Rose (2011:229) as management control prerequisites rather than techniques. All these weaknesses demonstrate the extent to which the effectiveness of healthcare management control system in the South African public healthcare system still remains a challenge.

8. MANAGERIAL IMPLICATIONS

Generally, it was not reasonably practicable to gain insight into a comprehensive list of techniques which are used in the South African public healthcare system. This is attributable to the fact that no single healthcare document outlines a comprehensive set of techniques which are used in the South African public healthcare system.

In effect, it was such shortfall that this research resolved by significantly relying on the interpretation of Department of Health's (2006) Supervisor's Manual, the Department of Health's (2012/2013:299) strategic healthcare plan, documents from the Office of Health Standards Compliance (2013:44), and findings of the studies conducted by Moleko (2013:4:4), Health Professional Council of South Africa (2008:1) and Ruff et al. (2011:184).

Through such analysis and interpretation in relation to the core theories on management control, the study arrived to the conclusion that the illustration in Figure 2 provides the appropriate set of comprehensive healthcare management control techniques that can be adopted for improving activities control and performance of the entire South African public healthcare system. Although a coherent framework of strategic management control techniques was extracted after the review of relevant theories, the same challenge of lack of a comprehensive framework on management control techniques was also evident in the core management control theories.

However, as it is indicated in Figure 1, an attempt to integrate the views of different theorists and organisational practitioners leads to the conclusion that the three main sets of the strategic management control techniques that influence the effectiveness of activities' control in modern organisations include feed-forward, concurrent and feedback control techniques (Koontz & Weihrich 2010:406; Mandal 2011:106).

Such a conclusion does not suggest that there is a single theory or author that clearly outlines and elucidates on these three different but interrelated management control techniques. This reflects the kind of management control related challenges that SAPHS faces for that even though it could be struggling on how to improve its activities' control; lack of appropriate theory that integrates all the essential management control techniques undermines any of its endeavours.

In a bid to address these conceptual and practical limitations, the illustration in Figure 2 prescribes that the South African public healthcare system will have to ensure that an appropriate strategic fit is created between the use of feed-forward, concurrent and feedback management control techniques. Such a view is attributable to the fact that the findings reveal stronger reliance and use of feedback public healthcare management control techniques, as feed-forward and concurrent public healthcare management control techniques are neglected by the South African public healthcare system. Such a view means that healthcare managers are able to only evaluate activities after the completion of implementation, and are not able to either detect likely future destabilising factors or evaluate and take corrective actions as public health plans and strategies are implemented.

In the context of the illustration in Figure 2, the creation of a strategic fit of control techniques signifies that the South African public healthcare system will be able to effectively evaluate and monitor its activities at all angles, namely; before implementation, during implementation and after implementation. Attributable to this argument is the fact that the application of feed-forward management control system would provide a set of public healthcare management control techniques which healthcare managers can use to assess previous and present data in order to predict future changes which may either distort or promote the successful implementation of public healthcare plans and strategies.

In line with the illustration in Figure 2, the application of concurrent public healthcare management control would provide managers in the South African Public Healthcare System with a set of techniques and measures which can be applied by managers and employees to monitor, evaluate, identify deviations and take immediate corrective actions as activities are executed. The values associated with the use of feedback public healthcare management control are linked to the fact that it can provide public healthcare managers with a set of techniques for evaluating and measuring performance after tasks or activities have been completed. In order to accomplish these, Figure 2 indicates that the National Health Department must create a strategic fit that ensures that all these three types of management control techniques are used all the time.

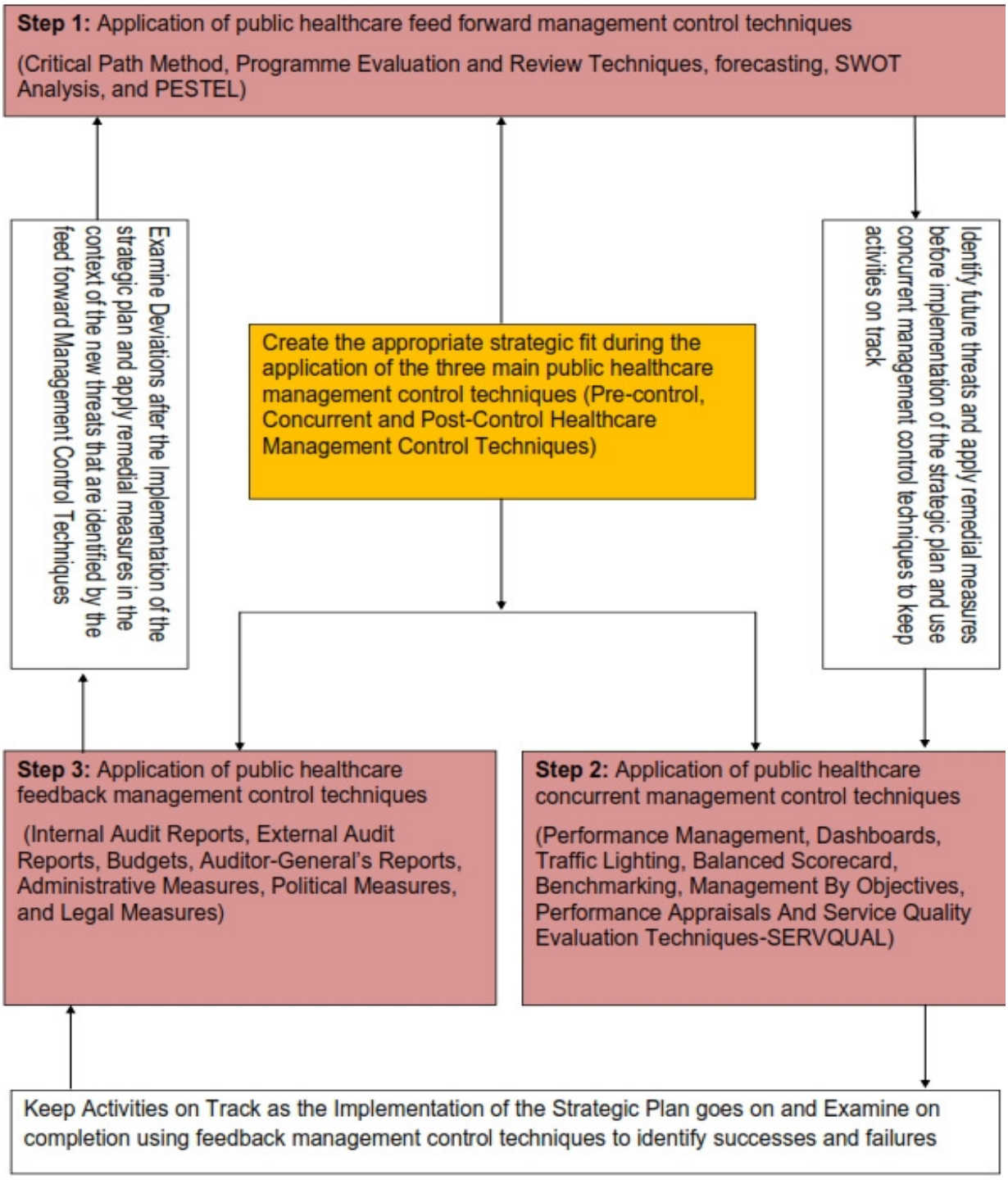

FIGURE 2: A logical cyclical flow of the integrated strategic healthcare management control techniques for effective performance of the South African public healthcare system

Source: Researcher's own construct as derived from the interpretation and integration of different theories on strategic management control techniques in the context of the challenges marring the effectiveness of strategic control in the South African public healthcare system

In terms of the feed forward management control techniques, Figure 2 illustrates that the South African public healthcare system must apply techniques that include Critical Path Method (CPM), Programme Evaluation and Review Techniques(PERT), forecasting, SWOT Analysis, and PESTEL. It is further noted in Figure 2 that the application of the concurrent control techniques would require the South African public healthcare system to apply the techniques that encompass performance management, dashboards, traffic lighting, benchmarking, management-by-objectives, performance appraisals and service quality evaluation techniques.

Finally, Figure 2 illustrates that the South African public healthcare system must apply feedback management control techniques that encompass Internal Audit, External Audit, Budgets, Auditor-General's Reports, Administrative Measures, Political Measures and Legal Measures.

In a nutshell, it is anticipated that through the approach provided in Figure 2, the South African public healthcare system will be able to put in place a perfect management control system that not only facilitates effective control of activities and the implementation of different healthcare programmes, but also achievement of the desired level of performance.

9. CONCLUSION

This study solves the dilemma associated with lack of an integrated theoretical framework of healthcare management control techniques for improving monitoring and evaluation of activities in the South African public healthcare system. However, the prescription of the strategic frameworks in Figures 1 and 2 is not conclusive, as their overall efficacy and the key determining factors will still need to be tested. Certainly, the efficacy of this postulated strategic framework is most likely to depend on certain key success factors that include the overall skillfulness of the employees and commitment to ensure that the techniques are effectively used. On that basis, it is suggested that future research must examine the key success factors that determine the effective application of healthcare management control techniques which are outlined in the integrated strategic framework in Figures 1 and 2.

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